



# 2015 Aquatic Sciences Meeting

Aquatic Sciences: Global And Regional Perspectives — North Meets South

22-27 February 2015 — Granada, Spain

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## ABSTRACT

### MESOOZOOPLANKTON DISTRIBUTION, PRODUCTION AND RESPIRATION IN THE GLOBAL OCEAN

Mesozooplankton biomass, abundance and mass-specific physiological rates as well as community production and respiration in the upper 2000 m were assessed from samples collected during the Malaspina circumnavigation expedition (~35°N-40°S) using an image-based analysis system (IBS). Equations relating metabolic rates, temperature, and body weight, were developed according to temperature ranges found at the different ocean regions and depth layers. High abundance and biomass were observed in the epipelagic zone and decreasing with depth as expected. However, high biomass was also found beyond 1000 m related to the colder and productive waters of the eastern regions of the Indian and Pacific Oceans. Specific growth and respiration rates followed a similar pattern and were highly correlated with temperature ( $r^2=0.835$  and  $0.806$ , respectively). Therefore, higher values were observed in the tropical and subtropical zones as the effect of higher temperature. Community production and respiration were considerably higher in the epipelagic layer, matching the distribution of biomass, with high values below 1000 m in the eastern Pacific/Indian Oceans. Global metabolism assessed through the IBS was similar to previous results based on data review.

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#### DETAILS

Poster presentation

Session #:008

Date: 2/25/2015

Time: 18:30 - 20:00

Location: Poster/Exhibit Hall

Presentation is given by student: Yes

PosterID: 60



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